

REMARKS

This is a full and timely response to the outstanding nonfinal Office Action mailed January 15, 2004. Reconsideration and allowance of the application and presently pending claims, as amended, are respectfully requested.

Present Status of Patent Application

Upon entry of the amendments in this response, Claims 9-13, 15-18, 20, 24, 26 and 28 remain pending in the present application and have been amended herein. Claims 1-8, 14, 19, 21-23, 25, 27, and 29-31 are cancelled by the present amendment. The remaining independent claims are method claims generally directed to a method for monitoring the vital signs or other electrical impulses of a subject, namely, Claims 9, 13 and 26. Dependent Claims 10-12, 15-18, 20, 24, 28 and 32-33 are amended to conform to the amendments of their base independent claims. Claims 13 and 26 stand rejected under 35 U.S.C. §112, second paragraph, but do not stand rejected based on art. Claim 9 stands rejected under 35 U.S.C. §103(a). These rejections are discussed in detail below. It is believed that the foregoing amendments add no new matter to the present application.

Response To Rejections

Response To Claim Rejections Under 35 U.S.C. Section 112, Second Paragraph

Claims 13 and 26 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Office Action asserts the following:

Claims 13, 26, and 27 are vague as to how the sensor cooperates with the fiber sensing component of the motherboard or if they are one and the same element.

Office Action at 2. Applicants respectfully traverse, but have nevertheless amended the claims to further prosecution. The above-referenced rejection has been addressed by amendments to the claims. It is believed that the rejection has either been accommodated and/or rendered moot based on the claim amendments set forth herein.

Applicant wishes to clarify that the amendments based on this rejection are cosmetic in nature and are not made as a condition for obtaining a patent. Applicant further submits that these amendments are non-narrowing and, pursuant to *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831 (2002), no prosecution history estoppel arises from these amendments.

Since Claims 13 and 26 do not stand rejected in view of the cited prior art, their allowance is now respectfully requested. And since Claims 17, 18, 20 and 24 are amended to depend upon Claim 13, and Claims 28, 32 and 33 are amended to depend upon Claim 26, they are also believed allowable.

Response To Claim Rejections Under 35 U.S.C. Section 103(a)

Claims 1-10, 14-25, 32, and 33 stand rejected under 35 U S C 103(a) as being unpatentable over Allison (U.S. Patent No. 4,016,868) in view of *Flick*. The Office alleges that:

Allison clearly discloses the fabric-based sensor (see column 3, lines 20-27) The reference fails to disclose the electrical lead from the conductive fabric as being one of the fibers of the fabric Flick clearly discloses a similar fabric sensor wherein one of fibers can be the electrical lead (see Figure 4) Given this teaching, it would have been obvious to use one of the fibers of the fabric in Allison as the lead to better integrate the structure.

Office Action at 3. Applicants respectfully traverse.

Claims 1-8, 14, 19, 21-23, 25, 27, and 29-31 are cancelled by the present amendment, leaving method claims 9, 10, 13 (which is not rejected under Section 103(a)), 15-18, 20, 24 (which are amended to depend upon Claim 13), 26 (which is not rejected under Section 103(a)), 28 (which is amended to depend upon Claim 26) and 32-33. This leaves Claims 9, 10, 17, 18, and 20 as directly affected by this rejection. Claims 11 and 12 (which are amended to depend directly or indirectly upon Claim 9) stand rejected based on another combination of references. Their rejection is believed moot in view of their amendment to depend upon Claim 9.

Of the remaining claims, Claim 9 is the only independent claim rejected under this rejection. The combination of *Allison* in view of *Flick* fails to establish a *prima facie* case of obviousness of Claim 9, however.

The passage in *Allison* cited in the Office Action to support the rejection, namely, Col. 3, lines 20-27. In particular, *Allison* discloses therein:

"All of the strips in the garment are approximately 1/8 inch wide, with the strips in each pair being parallel to each other and approximately 1/2 inch apart. All of the strips are elastic fabric such as nylon, impregnated with a conductive metal, preferably silver. Other metals such as aluminum, gold or copper may serve also. The impregnated strips are woven into the garment fabric at the selected intervals as the garment is being manufactured, presenting a uniform interior and exterior surface. The remaining fabric of the garment is nonconductive, consequently each strip and patch is insulated from all others. Since the strips are woven integrally with the garment, they are not detachable."

Thus *Allison* discloses a sensor which is in the form of a strip 1/8 inch wide incorporated into the fabric of the garment. The strip is made of elastic fabric such as nylon. The strip is impregnated with a conductive metal.

Accordingly, *Allison* does not teach or suggest a sensor in the form of a knitted or woven fabric including one or more individually conductive fibers integrated therein by the process of knitting or weaving the fabric, each conductive fiber being individually conductive prior to incorporation into the fabric [of the sensor] in the absence of a conductive coating applied to the fabric or to the fibers.

In this regard, *Allison* is no different than *Flick*. The deficiency of *Allison* is not remedied by *Flick*. *Flick* teaches that to obtain conductivity in its apparatus, a metallized coating must be applied to the fabric. Thus, the nylon fabrics *per se* in *Flick* are not conductive. It is the metallized coating that is applied to the fabric that is conductive. This is further supported by the fact that nylon is a compound which is known to have good electrical resistance. Similarly, the nylon fabric of the strips of *Allison* is not *per se* conductive. *Allison* teaches to make the strips conductive by impregnating the strips with a metal. Consequently, the combination of *Allison* in view of *Flick* does not render Claim 9 obvious, as the combination does not meet every element of Claim 9. Applicant respectfully submits, therefore, that the rejection should be withdrawn.

If independent Claim 9 is allowable over the prior art of record, then Applicant submits dependent Claims 10-12, 15, and 16 are also allowable as a matter of law because the dependent claims contain all the features/elements/steps of Claim 9 and any intervening claim.

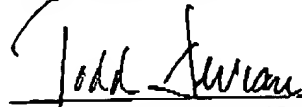
New Claims 34-41

These new claims present the alternate embodiments that the fabric-based sensor can be a part of a garment (see page 2, lines 27-30 of the Specification) or, can be separate item plugged into the wearable motherboard or, can be part of a garment along with the wearable motherboard. These claims are believed allowable for the same reasons as their respective base independent Claims 9, 13 and 26.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 9-13, 15, 18, 20, 24, 26, 28, and 32-41 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



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